

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
4 August 2005 (04.08.2005)

PCT

(10) International Publication Number
WO 2005/070965 A2

(51) International Patent Classification⁷: C07K 16/18, A61P 37/02

(74) Agent: GARRETT, Arthur, S.; Finnegan, Henderson, Farrah, Garrett & Dunner, L.L.P., 901 New York Avenue, NW, Washington, DC 20001-4413 (US).

(21) International Application Number:
PCT/US2005/001883

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 21 January 2005 (21.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/538,322 21 January 2004 (21.01.2004) US

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): FIVE PRIME THERAPEUTICS, INC. [US/US]; 951 Gateway Boulevard, South San Francisco, CA 94080 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): PIERCE, Kristen [US/US]; 832 Morrell Avenue, Burlingame, CA 94010 (US). COLLINS, Amy, Tsui, L. [US/US]; 5955 Girvin Drive, Oakland, CA 94611 (US). ZHANG, Hongbing [CN/US]; 925 Cerrito Street, Albany, CA 94706 (US). WILLIAMS, Lewis, Thomas [US/US]; 125 Chapel Drive, Mill Valley, CA 94941 (US). BEAURANG, Pierre, Alvaro [BE/US]; 653 Via Casitas, Greenbrae, CA 94904 (US).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PHARMACEUTICAL COMPOSITIONS CONTAINING ANTAGONISTS TO LRP4, LRP8 OR MEGALIN FOR TREATMENT OF DISEASES

(57) Abstract: The present invention provides LRP4, LRP8 and LRP2 (megalin) polypeptides; polynucleotides encoding such; modulators of LRP4, LRP8 and LRP2 activity; and pharmaceutical compositions for the treatment of diseases. Compositions of the invention contain a pharmaceutically acceptable carrier or excipient and at least one modulator that is capable of binding to or interfering with the activity of LRP4, LRP8, LRP2 and active fragments thereof. The invention provides modulators, such as antibodies, RNAi molecules, anti-sense molecules and ribozymes. Additionally, the invention includes methods for the treatment of diseases, such as proliferative diseases and degenerative diseases, and methods of administration of the compositions of the invention.

WO 2005/070965 A2